

DEPARTMENT of ENVIRONMENTAL SERVICES  
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

**MORPHOMETRIC:**

Lake: CONNECTICUT LAKE, SECOND	Lake Area (ha):	520.42
Town: PITTSBURG	Maximum depth (m):	19.2
County: Coos	Mean depth (m):	6.1
River Basin: Connecticut	Volume (m <sup>3</sup> ):	31676500
Latitude: 45°09'20" N	Relative depth:	0.7
Longitude: 71°10'15" W	Shore configuration:	2.19
Elevation (ft): 1871	Areal water load (m/yr):	13.47
Shore length (m): 17700	Flushing rate (yr <sup>-1</sup> ):	2.20
Watershed area (ha): 9298.1	P retention coeff.:	0.52
% watershed ponded: 2.1	Lake type:	natural w/dam

**BIOLOGICAL:**

		1 February 1995	17 August 1994
DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 75%	DINOBRYON 35%
	#2	COELOSPHAERIUM 10%	SYNURA 25%
	#3		
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			7.86
DOM. ZOOPLANKTON (% TOTAL)	#1	ROTIFER SPP. 32%	KELICOTTIA 34%
	#2	DAPHNIA 16%	KERATELLA 29%
	#3	ACTINOPHRYS 16%	NAUPLIUS LARVA 19%
ROTIFERS/LITER		10	65
MICROCRUSTACEA/LITER		5	33
ZOOPLANKTON ABUNDANCE (#/L)		19	98
VASCULAR PLANT ABUNDANCE			Scattered
SECCHI DISK TRANSPARENCY (m)			2.8
BOTTOM DISSOLVED OXYGEN (mg/L)		1.9	2.9
BACTERIA (E. coli, #/100 ml)	#1		9
	#2		
	#3		

**SUMMER THERMAL STRATIFICATION:**

stratified

Depth of thermocline (m): 7.5  
Hypolimnion volume (m<sup>3</sup>) : 5705500  
Anoxic volume (m<sup>3</sup>) : None

**CHEMICAL:**

Lake: CONNECTICUT LAKE, SECOND  
Town: PITTSBURG

	1 February 1995		17 August 1994		
DEPTH (m)	6.0	12.0	3.0	7.5	13.0
pH (units)	6.6	6.3	7.2	6.2	6.0
A.N.C. (Alkalinity)	8.0	8.3	7.2	5.9	4.7
NITRATE NITROGEN	0.16	0.22	< 0.05		0.28
TOTAL KJELDAHL NITROGEN	0.19	0.17	0.26	0.20	0.25
TOTAL PHOSPHORUS	0.009	0.009	0.006	0.013	0.011
CONDUCTIVITY ( $\mu$ mhos/cm)	30.2	32.8	28.6	28.7	29.2
APPARENT COLOR (cpu)	35	42	38	42	45
MAGNESIUM			0.67		
CALCIUM			3.5		
SODIUM			0.7		
POTASSIUM			0.24		
CHLORIDE	< 2	< 2	< 2		< 2
SULFATE	3	4	3		3
TN : TP	39	43	43		48
CALCITE SATURATION INDEX			2.7		

All results in mg/L unless indicated otherwise

**TROPHIC CLASSIFICATION: 1994**

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
2	3	1	1	7	Meso.

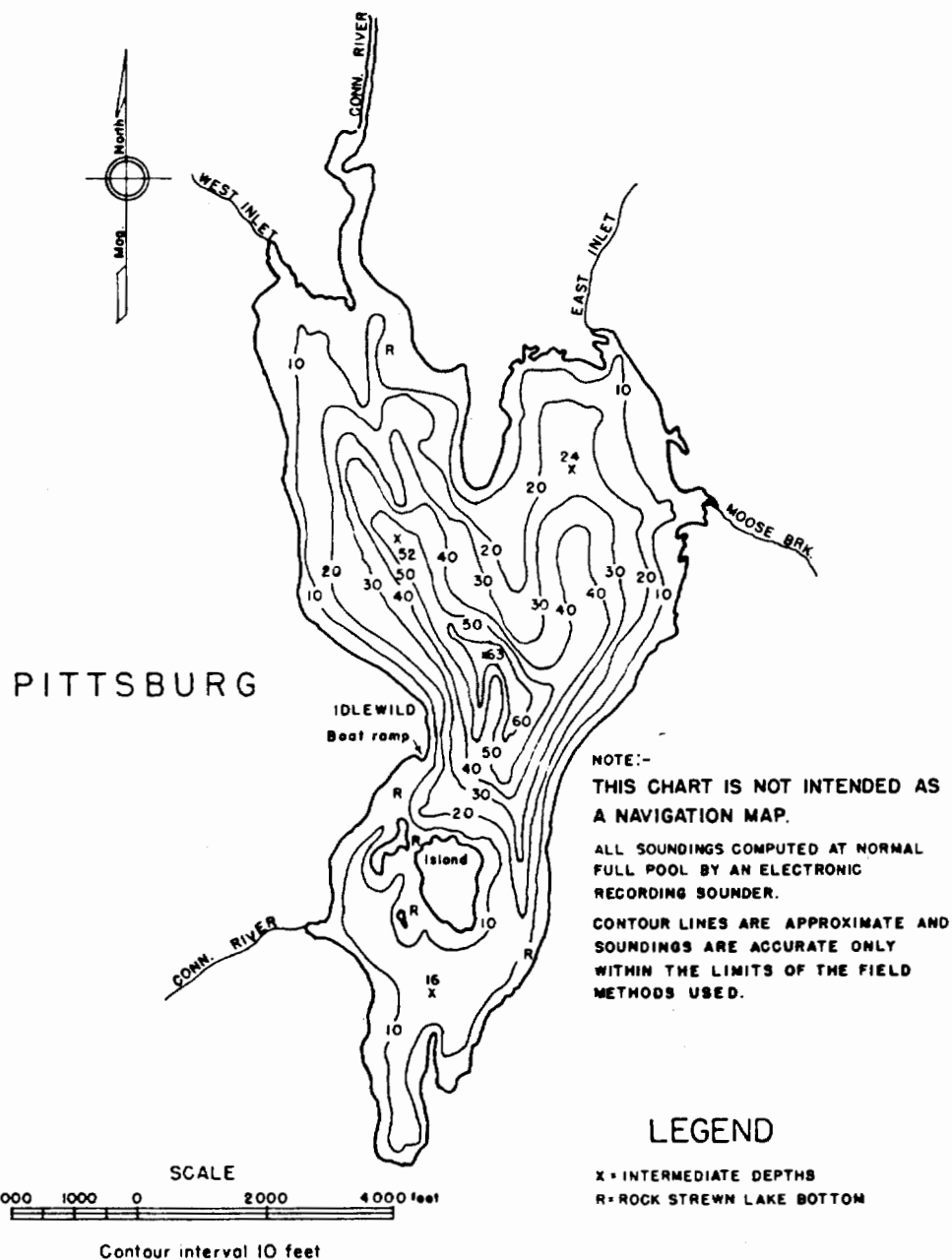
**COMMENTS:**

1. This lake was previously surveyed and classified in 1980. It was classified oligotrophic in 1980 but was essentially borderline oligotrophic/mesotrophic in both years; there was no significant change in water quality between the two years.
2. The dominant rotifer in the winter was a soft-bodied type that became "scrunched up" from the preservative; it may have been Synchaeta.
3. The water level was two to three feet below normal during the summer sampling.

# SECOND CONNECTICUT LAKE DEPTH CONTOUR CHART

PREPARED AND PUBLISHED BY  
THE NEW HAMPSHIRE FISH & GAME DEPARTMENT

FIELD DATA COLLECTED AS A SEGMENT OF  
DINGELL-JOHNSON FEDERAL AID PROJECT F 10 R  
FEBRUARY 1966



[illegible]

# Second Connecticut Lake Pittsburg

Conn. River

West Inlet

not surveyed  
too shallow to navigate

East Inlet

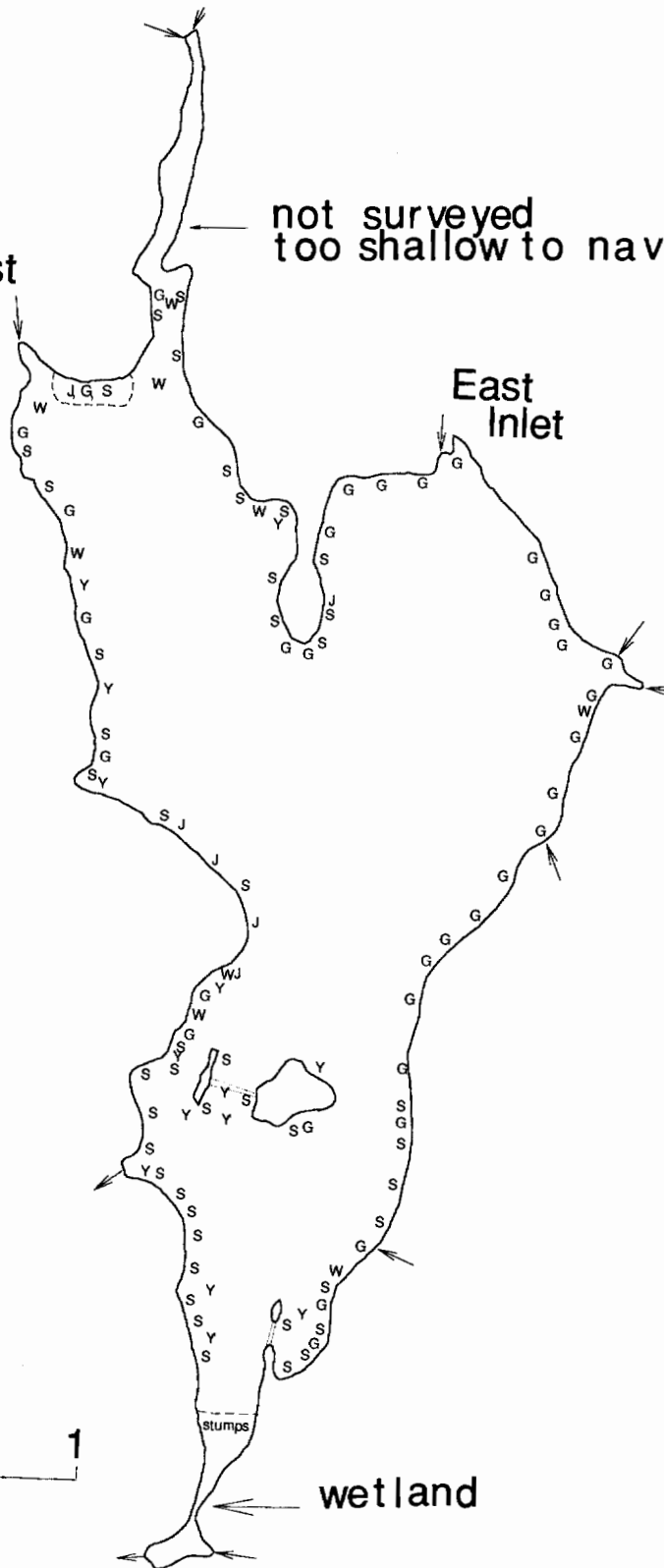
Moose Brk.

N

0 1  
Km

stumps

wetland



[illegible]